Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at http://about.jstor.org/participate-jstor/individuals/early-journal-content.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact support@jstor.org.

ZOOLOGY.

Classification of the Actiniæ.—In his account[1] of the Actiniæ of the "Albatross" collections of 1887–88, Professor J. P. McMurrich gives first a historical résumé of the growth of our knowledge of the Actinians and then presents his own ideas of the limits and arrangement of the families, followed by a description of the forms collected by the "Albatross." In the historical part we notice that the separation of the Bryozoa (better Polyzoa) from the Cœlenterates is credited to Milne Edwards. We had always understood that the discovery was made by J. Vaughan Thompson in 1830.

Changing the typographical arrangement Professor McMurrich gives the following classification of the Hexactinians.

A. Tentacles arranged in cycles ACTINIÆ.
a. Column simple
1. Tentacles cylindrical, smooth.
* Sphincter absent or weak, entodermal.
† Mesenteries not numerous. Halcampidæ.
† † Mesenteries numerous. Antheidæ.
* * Sphincter entodermal, tentacles deciduous. Boloceridæ.
* * * Sphincter mesoglœal.
† No acontia. Paractidæ.
† † Acontia. Sagartidæ.
* * * * Sphincter entodermal, circumscribed.
† Acrorhagi wart-like. Bunodidæ.
† † Acrorhagi foliate. Phyllactidæ.
2. Tentacles warty or branched.
* Tentacles simple. Heteractidæ.
* * Tentacles compound. Thalassianthidæ.
3. Tentacles reduced to stomidia. { Polyopidæ. Sicyonidæ.
b. Column provided in its upper part with branched or globular processes. Dendromelidæ.
c. Free swimming forms. Minyidæ.
B. Tentacles arranged radially STICHODACLYHINÆ.
a. Tentacles all of one form.
1. Tentacles few, capitate Corallimorphidæ.
2. Tentacles numerous, cylindrical. Discosomidæ.

---

[1] Proc. Nat. Mus., XV., p. 119, 1893.

3. Tentacles nodulated. Aurelianidæ.

b. Tentacles of two forms.

1. Marginal tentacles cylindrical; disc tentacles wart-like, branched or foliate. Rhododactidæ.
2. Marginal tentacles pinnate; disc tentacles wart-like. Phymanthidæ.

c. Tentacles of various forms, not cylindrical. Cryptopdendridæ.

It is a pity that the Government cannot provide good illustrations for papers like this, but like all the publications of the Fish Commission it has put up with unsatisfactory photo-cuts.

Maioid Crabs in the National Museum.—Miss Mary J. Rathbun continues[2] her studies of the Maioid Crabs by an account of the species of the family Maiidæ in the National Museum. She enumerates 39 species as occurring in the collection and gives a list of desiderata which includes 100 species. The new forms described are *Chionœcetes tannerii, Cœlocerus grandis, Lepteces* (n. g.) *ornatus and Hyastenus caribbœus.* The paper concludes with an extract from the as yet unpublished MSS. of the late Dr. Stimpson, a part of his final report upon the Crustacea of the Ringold and Rodgers Expedition to the North Pacific. The value of this last would have been increased by including references to the preliminary report on the same expedition published in the Proceedings of the Academy of Natural Sciences of Philadelphia for 1857.

A New Lancelet.[3]—Dr. E. A. Andrews regard the small lancelet which was found by the Johns Hopkins Marine Station in the Bahamas as the type of a distinct genus of Acraniata to which he has given the name *Asymmetron lucayanum.* The chief anatomical peculiarities of the form are found in the asymmetrical character of the reproductive organs, which occur on the right side of the body alone, in the absence of fin-rays from the ventral fin and in the presence of a long caudal process extending posterior to the last myotome. Dr. Andrews has also collected the literature of the various species of Amphioxus from which we learn that the following species have been described from the world.

Branchiostoma lanceolatum: Scandinavia, England, Mediterranean, Chesapeake Bay? Fiji Island?

B. caribœum: Mouth of La Plata, Brazil, St. Thomas, Jamaica,

---

[2] Proc. Nat. Mus., XVI, p. 63, 1893.

[3] Studies from Biol. Laby., Johns Hopkins, V, 1893.

Tampa Bay, Gulf of Mexico, Beufort, N. C.
B. cultellum: Australia.
B. bassanum: Australia.
B. belcheri: Australia.
B. elongatum: Peru.
B. californiense: California.
Asymmetron lucayanum: Bahamas.

Besides these, specimens have been reported from Japan, Ceylon, and the Bermudas. It is possible that the *B. cultellum* of the above list may prove to be a species of Asymmetron. Peters genus Epigonichthys is apparently regarded as synonymous with Branchiostoma.

Descriptions of Four New Rodents from California.—During the past year I have received among other mammals a considerable series of Californian rodents of the genera Sitomys, Reithrodontomys and Onychomys. In the identification of these it was found necessary to determine, if possible, the status of certain Californian forms described by Professor Baird in 1857, more especially of his *Hesperomys eremicus, H. boylii, H. gambelii* and *H. austerus.* The results of this study were necessarily incomplete, and, though far from satisfactory, some points of importance seemed sufficiently proven to warrant publication, and a paper was in preparation and nearly ready for the printer when Dr. J. A. Allen's Article on a collection of mammals from the San Pedro Martir region of Lower California came out in the Bulletin of the American Museum of Natural History.

This covered so exactly much of the same ground gone over by my own investigations in so much more exhaustive a manner and with such similar results, the original scope of this paper has been materially changed.

Among the series lately received by me from collectors in southern California there are four forms apparently undescribed. In determining the status of these I am greatly indebted to Dr. J. A. Allen for the loan of specimens from the New York Museum of Natural History, and for the critical examination of some of my own, forming the basis of this paper.

For the loan of the type specimen of *Onychomys torridus* and a large series of rodents from southern California, thanks are due to Mr. F. W. True of the National Museum, and Mr. Gerrit S. Miller, Jr., of Peterboro, New York.

1. *Sitomys major* Sp. nov. (Type No. 1202, ♂; Col. of S. N. Rhoads, Squirrel Inn, San Bernardino Co., July 1, 1893; col. by R. B. Herron).

Description.—Size large, somewhat less than largest *S. californicus.* Tail about length of head and body, stout, and scantily covered with coarse hairs; terminal pencil inappreciable. Hind feet smaller than in *californicus.* Ears large, more rounded and thinly-haired than in *californicus.* Color pale, grayish buff on upper parts, becoming brownish on rump and lacking any darker dorsal stripe. Sides, from eyes to root of tail, more buffy than upper parts, but no definite lateral stripe. Lower parts uniform grayish white, lacking buffy or plumbeous tints on throat and ventral region always present in *californicus.* A narrow, black, ring encircles each eye.

Measurements.[1]—Total length, 193.5; tail, 98.5; hind foot, 22.5. Skull—total length, 28.5; basilar length, 20.5; zygomatic breadth, 13.8; length of nasals, 10.5; interorbital constriction, 4.3.

Another specimen, a female, taken at the same date and place, has lost half the tail during life. In no other respect does she differ from the type, the length of the head and body and of the feet being the same in both.

In size, form, dentition and relative measurements the skull of *major* differs inappreciably from its near ally, *californicus.* The resemblance of *major* to Baird's description of "*Hesperomys boylii*" and its apparent affinities with *californicus* inclined me to the belief that it was his "Long-tailed Mouse," and that it should be classed a sub-species of *californicus* as *S. californicus boylii.* Dr. Allen, who has examined the type of *boylii,* and to whom I submitted the two specimens of *major* for an opinion on this question, thinks their identity very doubtful, though admitting their apparent resemblance in size and coloration; neither does he consider the relationship of *major* to *californicus* at all close. Independently of this verdict I should have hesitated to give *major* full specific rank.

I am informed that Dr. Merriam has secured a series of *Sitomys* from the type locality of *boylii* in Eldorado Co., which will enable him shortly to re-describe that species and settle a much involved question in the synonomy of this very puzzling genus.

2. *Sitomys herronii*[2] Sp. nov. (Type No. 815, ♀, Col. of S. N. Rhoads, San Bernardino Valley, Cal., March 3, 1893, col. by R. B. Herron.)

Description.—Body short and stout; ears large, very thinly and minutely haired. Tail very long and slender (one-third longer than head and body), clothed with minute, whitish hairs, slightly darker along ridge, the annuli not concealed thereby. There is no dark ring around eyes. Upper parts uniformly buffy gray, lacking any tendency to a darker median area, the lower sides and cheeks becoming purer ochraceous buff, the root of the tail being encircled by same color. The face is grayer than rest of upper parts. Pelage very soft, long and full. Feet white, small and slender, upper half of thighs and fore-legs, buff. Lower parts soiled gray washed with buff, whitest on chin, darkest on breast and belly.

---

[1] All measurements given in this paper are in millimeters, and were made by collector before skinning.

[2] For Mr. R. B. Herron, whose abilities as an expert and painstaking field-collector more than deserves public recognition.

Measurements.--Total length, 200 ; tail, 115 ; hind foot, 21. Skull --total length, 24.5 ; basilar length, 18.5; zygomatic breadth, 12.3 ; length of nasals, 9.2 ; interorbital construction, 3.5

This species is represented by four specimens, all taken in March, April, and June, on the ranch of the gentleman whose name they bear.

They belong to the long-and-naked-tailed, large-eared group of *Sitomys* typified by *eremicus.* In colors and general proportions the nearest ally of *herronii* is probably the *S. rowleyi*[3] of Dr. Allen, from Utah. It differs therefrom according to Dr. Allen, " in slenderer feet, buffy white instead of pure white underparts, rather grayer head and naked, instead of hairy, tail." *Herronii* also differs markedly from *rowleyi* in its skull measurements when compared with those given for the latter species by Dr. Allen. The length of nasals, given as " 5.5 " for *rowleyi,* is probably a typographical error. I have seen no skull of *Sitomys* in which the nasals measure less than seven millimeters, and, to judge by its other dimensions, *rowleyi* must be a large species. In its average characters *herronii* comes most closely to *Sitomys eremicus* and its sub-species *fraterculus,*[4] from both of which it may readily be distinguished by its buffy tints and larger size. Cranially, it has a broader and flatter rostrum, less recurved upper incisors and relatively much longer and wider incisive foramina than *eremicus.* There is no decided variation in size and color among the *herronii* series in my possession, the type being a fair average of the lot.

3. *Onychomys ramona*[5] Sp. nov. (Type No. 823, ♀, Col. S. N. Rhoads, San Bernardino Valley, Cal., April 11, 1893, col. by R. B. Herron).

Description.—Size somewhat larger than *O. torridus,* with larger ears. Colors similar to *O. longicauda,* but with an appreciable dorsal stripe and shorter, stout tail. Skull averaging larger or as large as *O.*

---

[3] Bull. Am. Mus. Nat. Hist., V, 76.

[4] Mr. Miller, who describes *fraterculus* as a full species, now considers it a " dark coast form of *eremicus.*"

[5] For "Ramona," "H. H." Jackson's heroine of the San Bernardino Valley.

torridus and of the same proportions, but with a relatively longer mandible and higher coronoid process.

Measurements.—Total length, 147; tail, 48; hind foot, 18; ear, from crown, 12.

I have examined the type of *torridus,* with which *ramona* shows closer affinities than with any other member of the genus. Making allowance for the facts the type was "skinned out of alcohol," and the skull is missing, it is easy to see that *torridus* is externally a very different looking mouse from *ramona,* being lighter and more unicolor above and lacking the bright vinaceous wash on the sides.

Adopting the cranial and superficial characters given for *torridus* by Dr. Merriam in North American Fauna, No. 2, the two are best distinguished as follows:

Onychomys torridus.	*Onychomys ramona.*
1. Above, uniform dull, tawny cinnamon.	1. Above, grayish vinaceous buff.
2. No darker dorsal stripe.	2. Darker grayish dorsally.
3. No black ring around eye.	3. Narrow, black ring round eye.
4. Tail with dark dorsal stripe reaching three-fourths its length.	4. Tail with dark dorsal stripe, seven-eighths to nine-tenths its length.
5. Average measurements:—length, 135; tail, 45; hind-foot, 20; ear, from crown, 10.	5. Average measurements (five adults): — length, 139; tail, 48; hind-foot, 19; ear, from crown, 13.

CRANIAL MEASUREMENTS.

	torridus	*ramona*
Basilar length (of Hensel)	18.5	19.
Greatest zygomatic breadth	12.5	12.6
" parietal "	11.4	11.5
Interorbital constriction	4.2	5.
Length of nasals	9.6	10.
Foramen-magnum to incisive foramina	12.5	13.4
Alveolar length of upper molar series	3.5	3.8
Length of mandible	13.2	15.
Height of coronoid process from angle	5.8	6.8

Up to the present time no Onychomys has been recorded from California that I am aware of. Dr. Merriam informs me a large series was taken there by the Death Valley Expedition, but owing to the delay in the publication of the second part of the report on the expedition this material was, of course, unavailable in the present connection.

The American Museum of Natural History has no specimens of Onychomys from California. Two winter specimens from Dulzura, San Diego Co., Cal., were loaned by Mr. Miller. They are unaccompanied by other data, or measurements, or skulls, and so were not included in the above diagnosis. They differ from the type of *ramona* in apparently smaller size and darker dorsal shade, in which respects they more closely resemble two October specimens of *ramona*. It may be remarked that this peculiar dorsal shading is also characteristic of the majority of Dulzura *Sitomys* and *Reithrodontomys* I have examined, as compared with the same species from San Bernardino Valley, but it is not sufficient to warrant special recognition in any case.

One half-grown and one young—adult specimen of *ramona* entirely lack the characteristic colors of upper parts in fully adult specimens, being of a uniform pale steel-gray above. The same striking difference, due to age, is very noticeable in a series of *Sitomys* and *Perognathus* taken in the same region.

4. *Reithrodontomys pallidus* Sp. nov. (Type No.$\frac{3289}{2568}$, ♀, Col. Amer. Mus. Nat. History, Santa Ysabel, Cal., March, 12, 1890, col. by F. Stephens).

Description.—Smaller and lighter colored than *R. longicaudus*. Colors of upper parts tawny or buffy gray, much lighter than that of *Mus musculus*. Median dorsal area darker than sides and face, the latter being washed with ochraceous, that color becoming purer on cheeks and lateral lines of belly. Belly white, with light plumbeous cast from exposed bases of hairs. Small ventral spot and space between fore-legs, tinged with buff. Chin and throat white. Tail of same relative length as *longicaudus*, but much more finely haired and annulated, and more slender and distinctly bicolor as in corresponding parts of body. Ears relatively larger than in *longicaudus*, lighter colored and with a fulvous spot at their anterior bases. Feet pure white.

Measurements.—Total length, 137 ; tail, 73 ; hind foot, 16. Skull—total length, 19.2; basilar length, 14.6; zygomatic breadth, 10.2; length of nasals, 7.1 ; interorbital constriction, 3.

Only one specimen of this mouse was secured at San Bernardino. Mr. Herron reports them very rare while *longicauda* seems to be abundant near its type locality about San Francisco.

Two specimens, kindly sent me by Dr. Allen, from Santa Ysabel, are evidently the same species. They are more fully adult than the San Bernardino specimen, and, like other San Diego County skins, are blacker above. Their external and cranial characters confirm their identity with mine as contrasted with *longicaudus*. Owing to the more typical character of Dr. Allen's specimens, I have chosen one of them for the type in preference to my own. Duplicates of *pallidus* from the San Bernardino Valley southward, will most probably confirm its good specific characters. Its alliance to *megalotis* is certainly more remote than with *longicaudus*. Its possible identity with *montanus* is very doubtful on geographical grounds alone, the latter being probably, as Dr. Allen indicates, an eastern Rocky Mountain form of *humilis*. Dr. Allen's *aztecus* from New Mexico differs from it in larger size, relatively much shorter tail, less buffy color, and in cranial proportions.

In external measurements *pallidus* is much shorter and smaller-bodied than *longicaudus* and has smaller feet. In skull measurements it shows the same diminution in length with greater relative zygomatic breadth and a blunter, less attenuated rostrum. The relative length of mandible to height of coronoid process above angle in *pallidus* is in the same direction. The coronoid process in *pallidus* is sharply hooked, in *longicaudus* it is bluntly recurved.

These features are shown in the following table:

BODY MEASUREMENTS.

	longicaudus (4 adults)	*pallidus* (3 adults)
Total length	153.	138.
Length of tail vertebræ	80.	75.
" " hind foot	18.	16.
" " ear, from crown (from skin)	10.5	11.
SKULL MEASUREMENTS.		
Basilar length (of Hensel)	15.6	14.6
Greatest zygomatic breadth	9.8	10.2
Interorbital constriction	3.	3.
Length of nasals	7.8	7.1
Total length of skull	20.5	19.2
Length of mandible	12.	11.
Height of coronoid process from angle	5.1	5.

—SAMUEL N. RHOADS.

Zoological News. **Reptilia.**—Dr. Stejneger describes[4] as new *Xantusia henshawi* from San Diego Co., California. It may be distinguished from the other members of the genus by the possession of two interfrontonasals; one row of superciliaries; frontoparietals in contact; an interoccipital, and a vertical pupil.

Birds.—Robert Ridgway describes[5] *Odontophorus consobrinus* from Southern Mexico. It is much like *O. guttatus*, but is often darker and lacks any buff or tawny color in the crest.

Mammals.—J. A. Allen enumerates[6] fourteen species of Thomomys including four (*Th. monticolus, aureus, fossor,* and *toltecus* which are new.)

[4] Proc. Nat. Mus., XVI, p. 467, 1893.

[5] Proc. Nat. Mus., XVI, p. 469, 1893.

[6] Bull. Am. Mus. Nat. His., V, p. 47, 1893.